

8.1.9.s *Wruck Canyon (J 16-18)*

Site Description and Existing Conditions

Wruck Canyon (J 16-18) is a 9.3 acre parcel located in the Spring Canyon area of Otay Mesa along the U.S./Mexico border. This site was owned and managed by The Environmental Trust prior to its bankruptcy. The land is zoned Light Industrial and developments have been proposed for nearby parcels. The vernal pools are located outside the MHPA with surrounding land uses including open space, undeveloped land and the international border.

Six vernal pools (63.5 m² [683.51 ft²] combined basin area) were mapped at this site. The basins occur in the Stockpen gravelly clay loam, and upland vegetation is primarily non-native grasslands on the mesa with coastal sage scrub in canyons. No sensitive species were observed in 2003.

The Wruck Canyon vernal pools were identified by the adopted *Recovery Plan for Vernal Pools of Southern California* (USFWS, 1998) as a necessary to stabilize populations of the following endangered and threatened species: *E. aristulatum*, *P. nudiuscula*, *N. fossalis*, *O. californica*, *B. sandiegonensis* and *S. woottoni*.

Threats

Development

Wruck Canyon was conserved by The Environmental Trust. The status of this parcel will be decided by the bankruptcy court.

Invasive Species

Invasive species occur in vernal pools and upland areas.

Edge Effects

Development of the Otay Mesa may further isolate Wruck Canyon from surrounding open space and nearby vernal pool complexes.

Trespass

Major impacts have occurred from recreational off-road vehicles, immigrant traffic, Border Patrol vehicles and grazing.

Litter

The site may be impacted by wind-blown trash, dumping, litter from trespassers and itinerant encampments.

Fire and Fire Suppression

This site is located in a currently undeveloped area, and may be impacted in the future if defensible structures are developed in the vicinity.

Current Management Activities

This site was managed by The Environmental Trust.

Management Recommendations

Minimize the impacts of off-road vehicles, including Border Patrol. The management agency should seek funding for fencing to preclude access maintaining connectivity to adjacent open space areas with lower risk of trespass. Appropriate bilingual signage shall be developed with both educational and no-trespassing elements. In addition, enforcement personnel should be dedicated to this area as additional management funding becomes available.

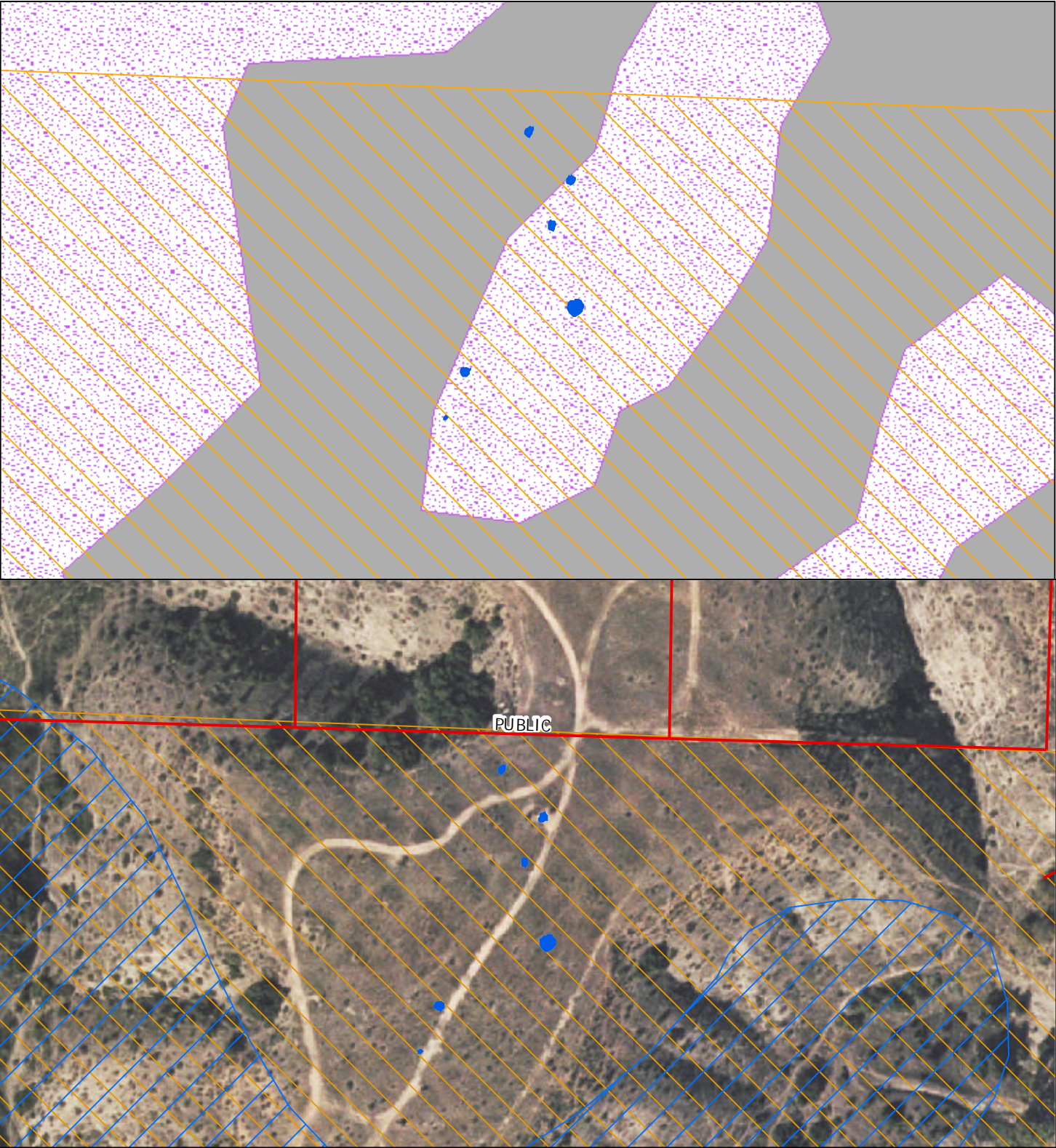
Seek grant funding for restoration and/or enhancement of the vernal pools. Restoration and/or enhancement is appropriate at this site given the high species diversity recorded historically at nearby vernal pool sites. Restoration and/or enhancement actions should be focused on creating stable populations of *E. aristulatum*, *P. nudiuscula*, *N. fossalis*, *O. californica*, *B. sandiegonensis* and *S. woottoni*, in accordance with the U.S. Fish and Wildlife Service Recovery Plan.

Restoration and reintroduction efforts shall utilize seeds from within the smallest possible geographic range, in the following order, as necessary: complex, series, geographic region (i.e. Otay Mesa).

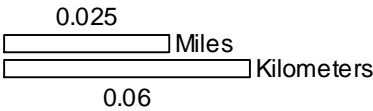
Weeding within and immediately adjacent to vernal pools should be done by hand. In upland areas, mechanical removal may be necessary; however, herbicides should not be used in or adjacent to vernal pools. Targeted species for removal include, but are not limited to Italian ryegrass (*Lolium multiflorum*), rabbitfoot grass (*Polypogon monspeliensis*), yard knotweed (*Polygonum arenastrum*), fennel (*Foeniculum vulgare*) and curly dock (*Rumex crispus*).

The site should be rezoned from Light Industrial to Open Space. Adaptive management shall include management of the site to improve habitat conditions for native, solitary bees known as obligate pollinators for vernal pool species.

Figure 61



Wruck Canyon (J 16-18)



- Roads
- MHPA
- Conserved Lands
- Vernal Pools at Site
- Adjacent Vernal Pools
- Coastal Sage Scrub
- Disturbed Land

Note: MHPA and Roads not shown in top map; vegetation mapping per Ogden 1997.

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8.1.9.t J 21

Site Description and Existing Conditions

J 21 is a 49-acre site located southwest of Siempre Viva Road and La Media Road in Otay Mesa. These vernal pools occur along a drainage near undeveloped lands and agriculture. The site is not conserved; it is zoned Light Industrial and is outside the MHPA.

Seven natural vernal pools (866 m² [9321.550 ft²]) were mapped at J 21. Huerhuero loam underlies the vernal pools, and upland vegetation is disturbed non-native grasslands. No sensitive species were present in 2003.

The J 21 vernal pools were identified by the adopted Recovery Plan for Vernal Pools of Southern California (USFWS, 1998) as a necessary to stabilize populations of the following endangered and threatened species: *E. aristulatum*, *P. nudiusscula*, *N. fossalis*, *O. californica*, *B. sandiegonensis* and *S. woottoni*.

Threats

Development

J 21 is privately owned, un-conserved and located outside of the MHPA, and may be impacted by development.

Invasive Species

Invasive species, particularly grasses, occur in both upland and vernal pool habitats.

Trespass

Impacts occur from foot traffic and off-road vehicles.

Litter

The site may be impacted by wind-blown debris, litter and dumping.

Fire and Fire Suppression

These vernal pools are located in an undeveloped area along the U.S./Mexico border. If defensible structures are developed in the future, the site may be utilized as a staging area for fire suppression vehicles in the event of a fire.

Current Management Activities

No management activities are planned or on-going.

Management Recommendations

Due to the presence of vernal pools, J 21 is recommended for conservation through public acquisition or private mitigation. The site is located adjacent to large MHPA open space areas and vernal pool preserves. However, development is not precluded; if all or portions of the site are conserved through acquisition or on-site mitigation for development, the following recommendations shall be implemented.

Restoration and/or enhancement of the vernal pools on-site is appropriate given the high species diversity recorded historically at nearby vernal pool sites. Restoration and/or enhancement actions should be focused on creating stable populations of *E.*

aristulatum, *P. nudiusscula*, *N. fossalis*, *O. californica*, *B. sandiegonensis* and *S. woottoni*, in accordance with the U.S. Fish and Wildlife Service Recovery Plan. Priority should be given to *E. aristulatum*, *M. minimus* and *P. nudiusscula*, which occurred historically. All reintroductions shall utilize seeds from within the smallest possible geographic range, in the following order, as necessary: complex, series, geographic region (i.e. Otay Mesa).

Fencing shall be installed to preclude access while maximizing connectivity to adjacent open space areas with lower risk of trespass. Appropriate signage shall be developed with both educational and no-trespassing elements.

A qualified biologist shall assess the site for non-native, invasive species, and shall recommend and implement a removal plan, if necessary. Weeding within and immediately adjacent to vernal pools should be done by hand. In upland areas, mechanical removal may be necessary, however, herbicides should not be used in or adjacent to vernal pools. Targeted species for removal include, but are not limited to Italian ryegrass (*Lolium multiflorum*), rabbitfoot grass (*Polypogon monspeliensis*), yard knotweed (*Polygonum arenastrum*), fennel (*Foeniculum vulgare*) and curly dock (*Rumex crispus*).

Annual maintenance shall be required to provide fence and sign repair and trash removal, as necessary. It is recommended that an endowment fund be established to fund maintenance activities in perpetuity.

All areas used for mitigation shall be rezoned to Open Space. If the site is used for mitigation; a fire management plan shall be prepared and included in the adopted Habitat Management Plan.

Adaptive management shall include management actions to improve habitat conditions for native, solitary bees known as obligate pollinators for vernal pool species.

It is recommended that educational programs be provided to nearby schools, Home-Owner's Associations (HOAs), community groups, etc. at the discretion of the land manager. Topics may include the local ecosystem, including vernal pools, habitat preservation (i.e. MSCP), and should incorporate hands-on learning via neighborhood hikes, etc. Programs should strive to present information in a manner that will increase interest in the natural world and cultivate local stewardship of open space, with the overall goal of developing positive neighborhood awareness of the preserve.

Figure 62



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8.1.9.u J 27

Site Description and Existing Conditions

J 27 is located on a 6.4-acre site northwest of the intersection of La Media Road and Airway Road in Otay Mesa. This conserved site was owned and managed by The Environmental Trust prior to the bankruptcy proceedings. The site is zoned Specialty Commercial and is not within the MHPA. Adjacent land uses include agriculture, transportation, truck lots and undeveloped lands (including MHPA), with residential and industrial developments being proposed adjacent and northern parcels.

Ten vernal pools (945 m² combined basin area [10171.895 ft²]) were mapped in 2003. The basins occur in Stockpen gravelly loam and Hueruero loam, and upland vegetation is non-native grasslands. *E. aristulatum* was observed in 2003.

The J 27 vernal pools were identified by the adopted Recovery Plan for Vernal Pools of Southern California (USFWS, 1998) as a necessary to stabilize populations of the following endangered and threatened species: *E. aristulatum*, *P. nudiusscula*, *N. fossalis*, *O. californica*, *B. sandiegonensis* and *S. woottoni*.

Threats

Development

J 27 is conserved.

Invasive Species

Invasive species occur in both the upland areas and vernal pool basins.

Edge Effects

Development of southern Otay Mesa may isolate the J 27 vernal pools from surrounding open space and nearby vernal pool complexes. There may also be impacts due to a pack of feral dogs that inhabit the area.

Trespass

Impacts occur from Border Patrol and recreational off-road vehicles, and immigrant traffic.

Litter

The site may be impacted by wind-blown debris, dumping, litter and itinerant encampments.

Fire and Fire Suppression

The J 27 vernal pools are located in a currently undeveloped area. The site may serve as a staging area in the event of a fire if defensible structures are developed in the vicinity.

Current Management Activities

The site was owned and managed by The Environmental Trust prior to their bankruptcy.

Management Recommendations

Restoration and/or enhancement are appropriate given the high species diversity recorded historically at nearby vernal pool sites. Restoration and/or enhancement actions should be focused on creating stable populations of *E. aristulatum*, *N. fossalis*, *P. nudiuscula*, *O. californica*, *B. sandiegonensis* and *S. woottoni*, in accordance with the U.S. Fish and Wildlife Service Recovery Plan. Priority should be given to *E. aristulatum*, *N. fossalis* and *P. nudiuscula*, which were recorded historically at J 27. All reintroductions shall utilize seeds from within the smallest possible geographic range, in the following order, as necessary: complex, series, geographic region (i.e. Otay Mesa).

Fencing should be installed to preclude access while maximizing connectivity to adjacent open space areas with limited risk of trespass. Appropriate signage shall be developed with both educational and no-trespassing elements.

Weeding within and immediately adjacent to vernal pools should be done by hand. In upland areas, mechanical removal may be necessary; however, herbicides should not be used in or adjacent to vernal pools. Targeted species for removal include, but are not limited to Italian ryegrass (*Lolium multiflorum*), rabbitfoot grass (*Polypogon monspeliensis*), yard knotweed (*Polygonum arenastrum*), fennel (*Foeniculum vulgare*) and curly dock (*Rumex crispus*).

Annual maintenance should be required to provide fence and sign repair and trash removal, as necessary. It is recommended that an endowment fund be established to fund maintenance activities in perpetuity.

This site should be rezoned from Specialty Commercial to Open Space. As the surrounding area develops, the land manager should seek funding for and complete a fire management plan in coordination with the appropriate fire department.

Adaptive management should include improvement of habitat conditions for native, solitary bees known as obligate pollinators for vernal pool species.

Educational programs may be provided to nearby schools, Home-Owner's Associations (HOAs), community groups, etc. at the discretion of the land manager. Topics may include the local ecosystem, including vernal pools, habitat preservation (i.e. MSCP), and should incorporate hands-on learning via neighborhood hikes, etc. Programs should strive to present information in a manner that will increase interest in the natural world and cultivate local stewardship of open space, with the overall goal of developing positive neighborhood awareness of the preserve.

Figure 63



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